



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

DEC 21 1999

OFFICE OF  
SOLID WASTE AND EMERGENCY  
RESPONSE

**MEMORANDUM**

**SUBJECT:** National Remedy Review Board Recommendations for the Oak Ridge Reservation Bethel Valley Watershed Superfund Site

**FROM:** Bruce K. Means, Chair  
National Remedy Review Board

A handwritten signature in black ink, appearing to read "B. Means", is written over the text of the "FROM:" field.

**TO:** Richard D. Green, Director  
Waste Management Division  
EPA Region 4

**Purpose:**

The National Remedy Review Board (NRRB) has completed its review of the proposed remedial action for the Oak Ridge Reservation Bethel Valley Watershed Superfund Site. This memorandum documents the NRRB's advisory recommendations.

**Context for NRRB Review**

As you recall, the Administrator announced the NRRB as one of the October 1995 Superfund Administrative Reforms to help control response costs and promote consistent and cost-effective decisions. The NRRB furthers these goals by providing a cross-regional, management-level, "real time" review of high cost proposed response actions. The board reviews all proposed cleanup actions that exceed its established cost-based review criteria.

The NRRB review evaluates the proposed actions for consistency with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and relevant Superfund policy and guidance. It focuses on the nature and complexity of the site; health and environmental risks; the range of alternatives that address site risks; the quality and reasonableness of the cost estimates for alternatives; regional, state/tribal, and other stakeholder opinions on the proposed actions, and any other relevant factors.

Generally, the NRRB makes "advisory recommendations" to the appropriate regional decision maker before the region issues the proposed response action for public comment. The region will then include these recommendations in the Administrative Record for the site. While the region is expected to give the board's recommendations substantial weight, other

important factors, such as subsequent public comment or technical analyses of response options, may influence the final regional decision. It is important to remember that the NRRB does not change the Agency's current delegations or alter in any way the public's role in site decisions.

## **NRRB Advisory Recommendations**

The NRRB reviewed the informational package for the proposed remedial action for the Bethel Valley Watershed and discussed related issues with EPA project manager Ed Carreras on November 17, 1999. Based on this review and discussion, the NRRB offers the following comments.

- DOE proposes that this cleanup be a final action for all media except groundwater. The board notes that the only exposure pathway likely to be fully addressed by this action is direct contact from contaminated soils. Furthermore, additional information is necessary in order to assess the contribution of soil contamination to groundwater and surface water, as well as to determine groundwater cleanup requirements. For these reasons the board believes this cleanup should be considered an interim action.
- The region should assure that the proposed remedial action objective for the groundwater cleanup is consistent with the EPA groundwater protection strategy.
- Since soil contamination profiles for the various contaminants were not provided, the board could not determine the benefits of different soil removal depths. The board recommends that DOE determine the most cost-effective excavation depth by reviewing the soil contaminant profiles, calculating the residual risk associated with various soil removal depths, and considering the resulting long-term reliability of different excavation options.
- DOE should distinguish the risk related to the flood plain sediments from those associated with creek sediments. It appears that the flood plain risk is a cesium-driven human health risk, while the creek poses human health and ecological risk from PCBs, heavy metals, and radiological contaminants. The board recommends that DOE establish action levels for each type of sediment in order to ensure that significant risks are addressed in a cost-effective manner.
- The board notes that routine facility administrative and operating costs should not be part of Superfund cleanup cost estimates. The board recommends that DOE clarify whether groundwater cleanup costs include money spent on routine process water treatment (they should not). Similarly, building maintenance and operational costs should not be considered part of this cleanup action.
- In the materials presented to the board, DOE indicates that a 15 millirem exposure level is the basis for the soil cleanup goals. The board notes that Superfund cleanup objectives should be based on a site-specific analysis. The board recommends that DOE evaluate and express its cleanup goals for this action in terms of residual cancer risk, which is derived using slope factors and a site-specific risk range analysis. See OSWER directive #9200.4-18, 9/22/97.
- It is a basic Superfund program expectation to treat principal threat source materials where ever practicable (40 CFR 300.430(a)(1)(iii)(A)). The board recommends that

DOE clearly explain in the proposed plan why it is not considering treatment for cesium-contaminated soils or the high level radioactive waste in area labeled SWSA 3, which are both considered to be principal threat source materials.

- It doesn't appear that the proposed ground water actions will achieve the stated general objective of protecting surface water from impacts due to ground water discharges. Based on the information presented, it appears that active containment measures could be taken as interim actions to achieve this objective. The board recommends that DOE consider such measures for achieving protection of surface water currently affected by contaminated ground water migration.
- The proposed remedy relies on long-term institutional controls to manage significant contaminant risks on site in perpetuity. The board recommends that DOE explain in the proposed plan the way in which institutional controls will ensure that the proposed two-foot protective soil barrier remains intact, given the possibility of future industrial use of the site and/or DOE activities that may disturb the soils.
- Building decontamination and demolition account for a large percentage of the cost for this proposed cleanup. The materials presented to the board did not include information that demonstrate the risks associated with the contaminated buildings. DOE should therefore assess on a building-by-building basis the risk related to each, and use this information to determine the most cost effective approach to address the contaminated buildings over time.

The NRRB appreciates the region's extensive efforts to work closely with DOE, the state, and community groups at this site. We encourage Region 4 management and staff to work with their regional NRRB representative and the Region 4/10 Accelerated Response Center in the Office of Emergency and Remedial Response to discuss any appropriate follow-up actions.

Please do not hesitate to give me a call if you have any questions at 703-603-8815.

cc: S. Luftig  
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OERR Regional Center Directors